Amendments to the Claims:

Claims 1 – 19 (Cancelled).

20. (Currently Amended) A process for [[the]] producing water-absorbent, foam-type polymer structures comprising the steps of

i) foaming an aqueous composition (A) by mechanical action, wherein the aqueous composition (A) comprises

(A1) water,

(A2) one or more polymers based at least on

(α1) from about 55 to about 100 wt.% of a polymerized, monoethylenically unsaturated, acid-group-containing monomer or its salt thereof,

(α2) from 0 to about 45 wt.% of a polymerized, monoethylenically unsaturated monomer that is copolymerizable with (α1),

wherein the sum of the amounts by weight of (α1) and (α2) is 100 wt.% and wherein at least about 31.5 wt.% of the monomers, based on the total weight of the monomers (α1) and (α2), are acrylic acid or salts of acrylic acid,

(A3) one or more crosslinkers,

(A4) one or more blowing agents,

(A5) one or more surfactants,

(A6) and optionally further auxiliary substances,

and

ii) heating the foamed aqueous composition of step i) to a temperature in a range of from about 50 to about 300°C, so that the polymer (A2) crosslinks at least partially and the content of water (A1) is adjusted to not more than about 15 wt.%, based on the total weight of the foam-type polymer structure that forms.

21. (Previously Presented) The process according to claim 20, wherein the foamed aqueous composition polymer has a number-average molecular weight of at least about 10,000 g/mol.

22. (Previously Presented) The process according to claim 20, wherein the foamed composition has a foam liter weight of from about 10 to about 1000 g/l.

23. (Previously Presented w) The process according to claim 20, wherein the surface of the absorbent, foam-type polymer structure is smoothed in a further process step.

24. (Previously Presented) A water-absorbent, foam-type polymer structure obtainable by a process according to claim 20.

25. (New) A process for the production of a composite, wherein the foamed aqueous composition as defined in claim 20 is brought into contact with at least a portion of the surface of a substrate and the substrate brought into contact with the foamed aqueous composition is then heated at a temperature in a range of from about 50 to about 300°C so that the polymer (A2) crosslinks at least partially, the content of water (A1) is adjusted to not more than about 15 wt.%, based on the total weight of the foam-type polymer structure that forms, and the resulting foam-type polymer structure is immobilized on at least a portion of the surface of the substrate.

26. (New) The process according to claim 25, wherein the substrate is selected from the group consisting of polymeric film, metal, nonwoven, fluff, tissue, woven fabric, natural fiber, synthetic fiber and foam.

27. (New) The process according to claim 25, wherein templates are used during application of the foamed aqueous composition to the substrate.

28. (New) A process for the production of a composite, wherein at least a portion of the surface of the water-absorbent, foam-type polymer structure obtained by the process of claim 20 is brought into contact with at least a portion of the surface of a substrate, and the polymer structure is then immobilized on at least a portion of the surface of the substrate.

29. (New) The process according to claim 28, wherein the substrate is a thermoplastic sheet-form structure.

30. (New) A composite obtainable by a process according to claim 25.

31. (New) A chemical product comprising a water-absorbent, foam-type polymer structure according to claim 24.

32. (New) A composite obtainable by a process according to claim 28.

33. (New) The process according to claim 20, wherein the one or more blowing agents is selected from inorganic salts or organic compounds that are capable of decarboxylation.

34. (New) A composite comprising a water-absorbent, foam-type polymer structure according to claim 24 and a substrate.

35. (New) A chemical product comprising a composite of claim 34.